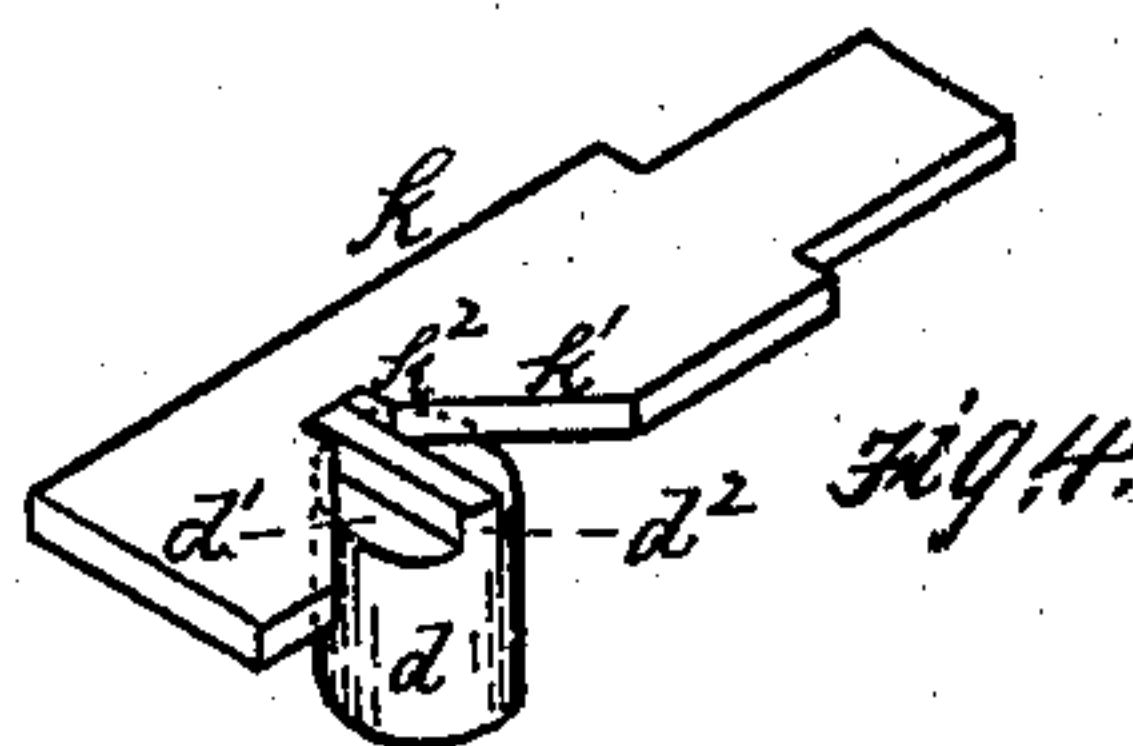
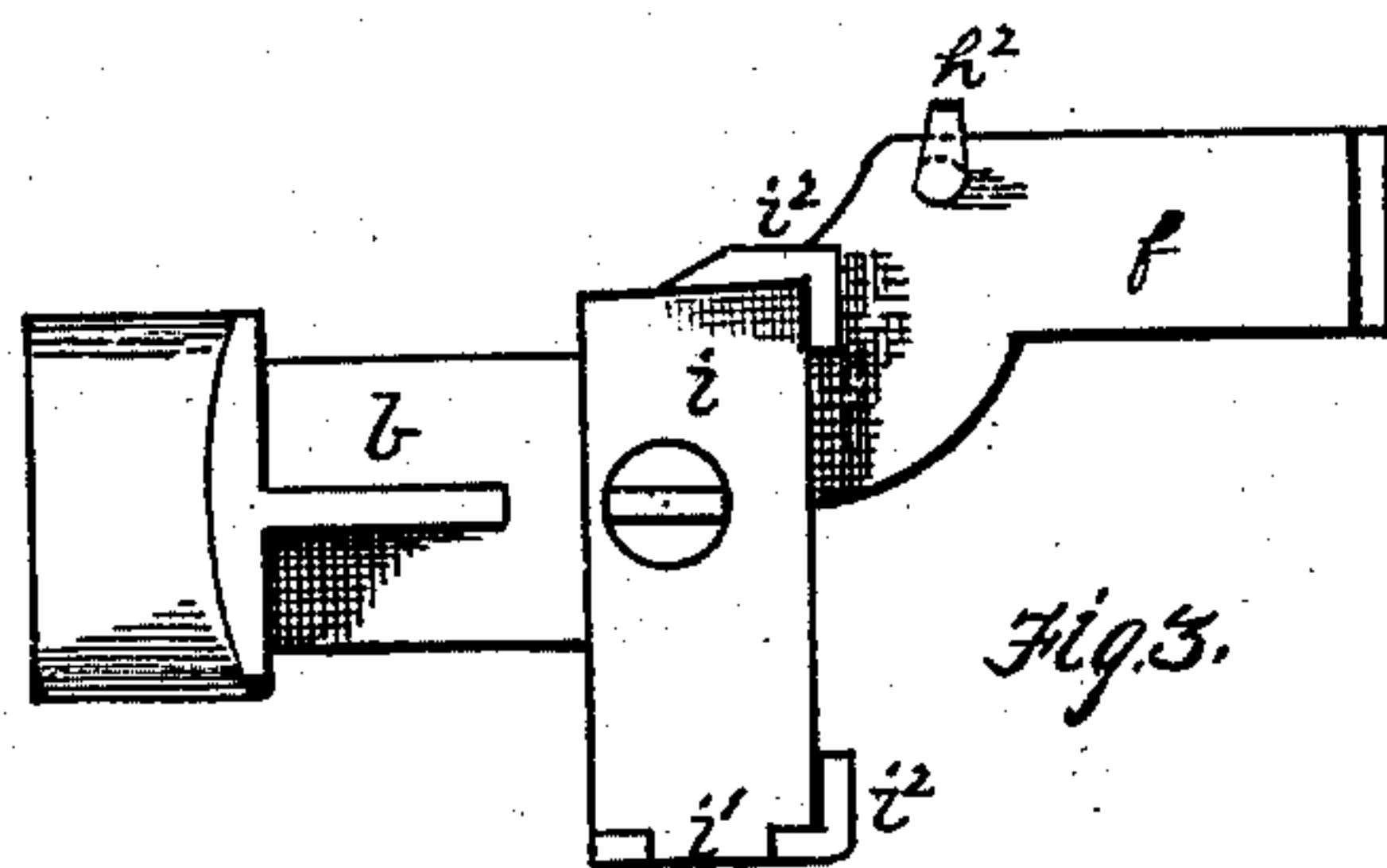
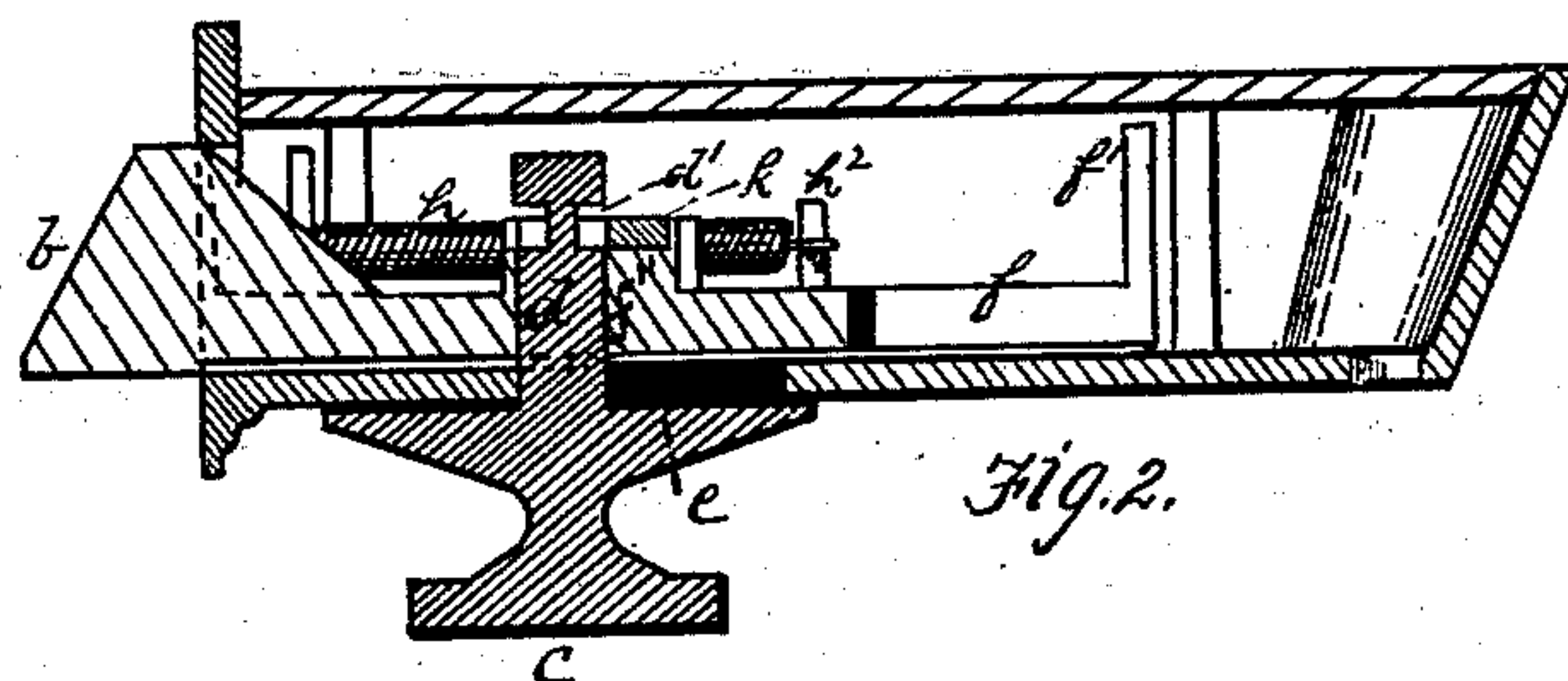
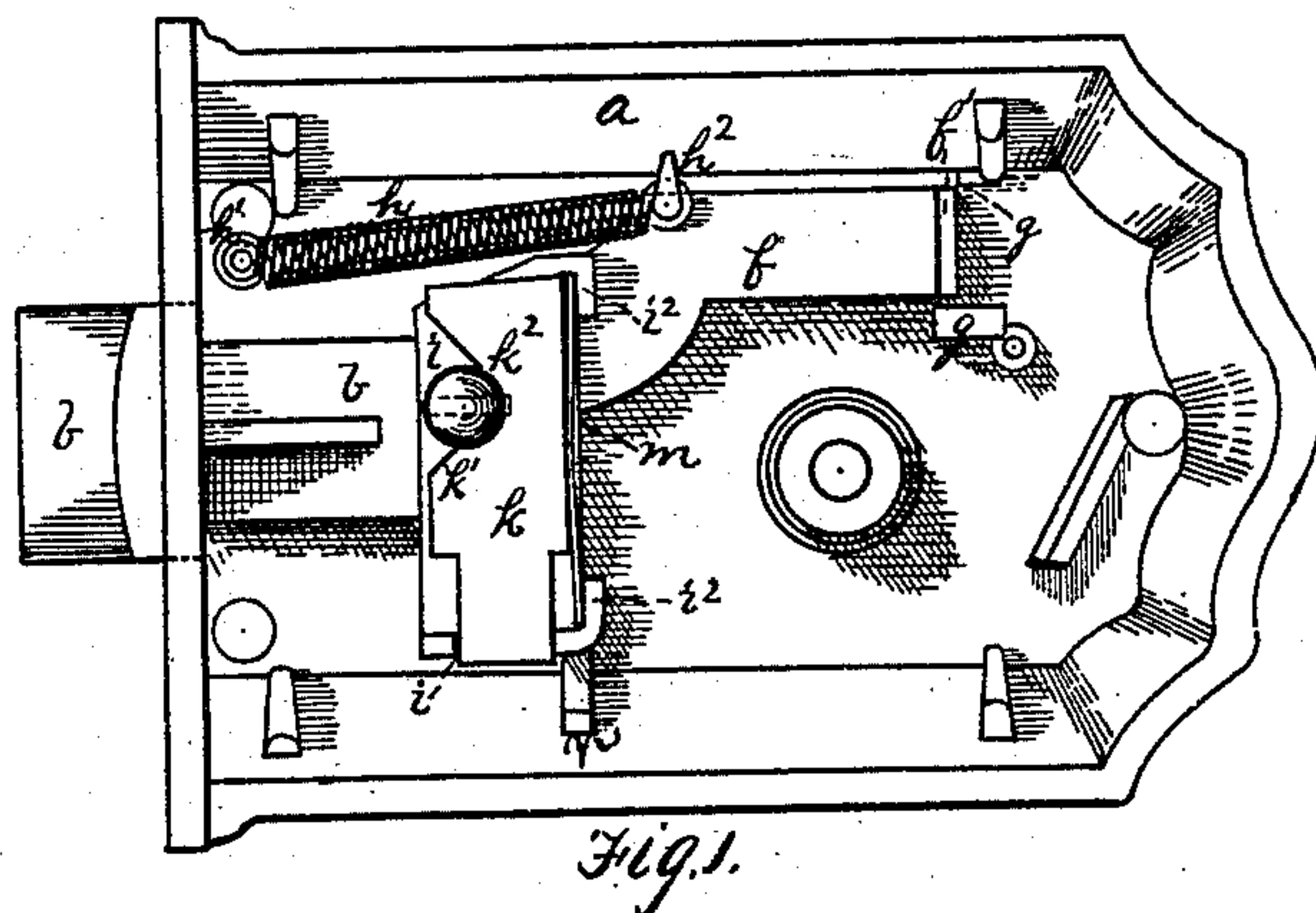


(Model.)

P. MATHES.  
Door Latch.

No. 232,529.

Patented Sept. 21, 1880.



Witnesses.  
J. K. Smith  
L. C. Fidler.

Inventor.  
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Attorneys

# UNITED STATES PATENT OFFICE.

PHILIP MATHES, OF IDLEWOOD, PENNSYLVANIA.

## DOOR-LATCH.

SPECIFICATION forming part of Letters Patent No. 232,529, dated September 21, 1880.

Application filed April 22, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, PHILIP MATHES, of Idlewood, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Door-Latches; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side view of my improved latch, the side plate being removed. Fig. 2 is a sectional view, and Figs. 3 and 4 are detail views.

Like letters of reference indicate like parts in each.

My improved latch belongs to that class having a sliding bolt operated by a knob and a locking device operated by the rotation of the knob to lock the latch either open or closed.

To enable others skilled in the art to make and use my invention, I will now describe its construction and manner of use.

I provide a case, *a*, of the usual construction, having a sliding latch, *b*, operated by a knob, *c*, which has a shaft, *d*, projecting and operating through a slot, *e*, in the face-plate. The latch has a tail-piece, *f*, which is provided with an abutment, *f'*, which presses against the opposite side of the lock and prevents the lateral displacement of the latch.

Guides *g* are cast upon the case to prevent the vertical displacement of the latch. The latch is held out by means of the spring *h*, one end of which is connected to a pin, *h'*, on the case, and the other to a pin, *h''*, on the tail-piece *f*.

The shaft *d* projects through a hole, *f''*, in the latch *b*. Extending at right angles across the rear end of the latch *b* is a plate, *i*, provided with an end piece, *i'*, and corner-pieces *i''*. The end piece *i'* is recessed for the passage of the end of the bolt *k*, which bolt is recessed on the front side, as at *k'*, and fits in a slot, *d'*, which extends around two sides of the shaft *d*. Shoulders *k''* are formed in the recess *k'*, against which the web *d''* of the slotted portion of the

shaft *d* operates to shoot and withdraw the bolt *k*. A steel spring, *m*, is placed back of the bolt *k*, its ends bearing against the corner-pieces *i''* of the plate *i*, to hold the bolt *k* up against the shaft *d*. On the edge of the case is a stop or abutment, *n*, so placed with relation to the bolt *k* that when the latch *b* is out the turning of the knob *c* will cause the bolt *k* to be shot in front of it, as shown in Fig. 1, and thereby secure the latch in a locked position. The latch is secured in an open position by pressing it back until the bolt passes the abutment *n* and then turning the knob, so as to shoot the bolt back of the abutment.

It will be noticed that the parts which constitute the locking part of the latch—to wit, the plate *i*, shaft *d*, bolt *k*, and spring *m*—are all separate, and require no attachment to each other. They are merely dropped in place when the latch is set up, and in case any of them are lost or broken they can be replaced without trouble or necessitating repairs of other parts of the latch.

The advantages of my improvement are its great simplicity and cheapness, both of manufacture and of setting up, its non-liability to get out of order, and its certainty and security in holding the latch in an open or closed position.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the sliding latch *b*, the locking-bolt *k*, mounted and movable transversely on the sliding latch, the shaft *d*, slotted as at *d'*, for operating both latch and bolt, the spring *m*, and lug *n*, substantially as and for the purposes specified.

In testimony whereof I, the said PHILIP MATHES, have hereunto set my hand.

PHILIP MATHES.

Witnesses:

JNO. K. SMITH,  
JAMES H. PORTE.